

REMARKS

Claim 17 has been amended in order to more particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Specifically speaking, Claim 17 now recites that the discharged air flow accelerates and focuses the sprayed liquid towards the moving body. Support for this amendment can be found in Figure 9(B) of the present specification. Newly presented Claims 21 and 22 are directed to preferred embodiments of the present invention. Support for newly presented Claim 21 is also found in Figure 9(B) and support for newly presented Claim 22 is also found in the figures in the present specification. No new matter has been added.

Claim 20 has been rejected under 35 USC 112, second paragraph, as being incomplete for omitting essential steps. Applicants respectfully disagree with the Examiner. Claim 20 is presented in Jepson format in which the preamble is admitted prior art. The invention defined by Claim 20 is spraying and applying the liquid with the spray unit of Claim 17. By referring to Claim 17, all of the apparatus limitations of the liquid spray unit are incorporated therein. As such, Applicants respectfully submit that the rejection of Claim 20 under 35 USC 112, second paragraph, is in error.

Claims 17-20 have been rejected under 35 USC 103(a) as being unpatentable over Erzinger in view of Emery. Applicant respectfully traverses this ground of rejection and urges that the currently presented claims are clearly patentably distinguishable over the cited prior art.

The presently claimed invention is directed to a liquid spray unit for spraying and applying a liquid onto a moving body which comprises a spray tube provided with one spray nozzle for reciprocatingly traveling in a width direction of the moving body and spraying the liquid and an air body provided with an air flow discharge port for discharging an air flow and arranged with respect to the spray tube such that

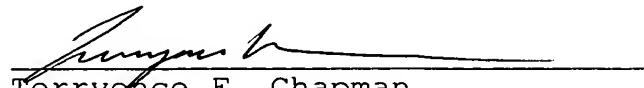
the discharged air flow accelerates and focuses the sprayed liquid towards the moving body. The present invention is also directed to a method of spraying and applying a liquid to a moving body using the inventive liquid spray unit.

The Erzinger reference discloses an improved dampening apparatus for offset printing presses. This apparatus comprises a water feed control means which controls, either manually or automatically, the feeding of water to the press. As admitted by the Examiner, this reference does not disclose an air box for accelerating the spray liquid toward the moving body. Additionally, this reference does not disclose the air flow focusing the sprayed liquid toward the moving body. Therefore, the secondary Emery et al reference must provide the motivation to one of ordinary skill in the art to modify the Erzinger reference in a manner that would yield the presently claimed invention. It is respectfully submitted that the Emery et al reference contains no such disclosure.

The Emery et al reference discloses an air atomizing spray nozzle for spraying a viscous liquid carrier at relatively low flow rates for agricultural and industrial applications. The nozzle comprises a hollow body with a liquid passage for receiving pressurized liquid from an external source, an air duct for receiving low pressure air for another external source and a nozzle assembly. However, this reference further discloses that the air flow is sprayed onto a sprayed liquid to positively expand the angle of the liquid spray pattern and disperse the liquid into the atmosphere. In contrast thereto, the currently presented claims require that the air flow accelerate and focus the sprayed liquid simultaneously to negate the surface currents occurring due to the traveling of the traveling body to be sprayed and thereby allow the stable spraying and application of the liquid to the traveling body. Emery et al does not disclose this feature. Therefore, Emery in combination with Erzinger does not present a showing of prima facie obviousness under 35 USC 103(a).

Favorable consideration is respectfully solicited.

Respectfully submitted,


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